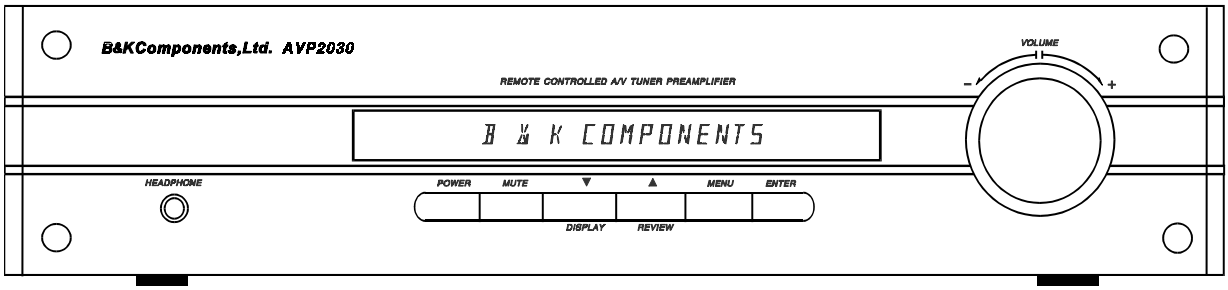
B&K Components, Ltd.



AVP 2030 Owner's Manual

B&K Components, Ltd.

P/N 11091

Acknowledgments

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Accessories included: Power cord, Manual, AVC-5.0 remote control, AVC-Z2 remote control, 6 AAA batteries

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN

SAFETY PRECAUTIONS

PLEASE READ BEFORE INSTALLING

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.

The lightning flash with arrowhead, within an equilateral triangle, is intended to alert the user of the presence of uninsulated "dangerous voltage" within the product's enclosure that may be sufficient magnitude to constitute a risk of electric shock to you.

The exclamation point within an equilateral triangle is intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the unit.

Caution: To prevent the risk of electric shock, do not remove cover. No user-serviceable parts inside. Refer servicing to qualified service personnel.

If an outdoor antenna is connected to your A/V system, be sure the antenna system is grounded to provide some protection against voltage surges and built up static charges. Keep outdoor antenna away from power lines.

- Turn preamplifier 'off' when plugging in or unplugging source cables!!!
- The AVP2030 is equipped with raised feet so that continuous ventilation can be maintained. They also help to reduce acoustic feedback into the preamplifier and provide a measure of protection against scratching any surface the unit might be resting on. **Do not alter or remove them**.
- Do not stack anything on top of the preamplifier (processor, source, etc).
- Do not stack the preamplifier on top of an amplifier.
- Always connect the AVP power cord to an unswitched AC outlet for normal operations.
- Mistaking ***SEND, RCV, CTRL OUT,*** or ***IR IN*** connectors for audio/video inputs or outputs may damage your preamplifier or other components.

Features

Overview

Your new AVP series preamplifier from B & K Components, Ltd., is a versatile audio/video control center. The AVP preamplifiers are designed to not only sound sensational, but also to be an attractive, easy-to-use addition to your audio/video system. Although you already have a good idea of your preamplifier's features, we'd like to take a moment to point out certain highlights. Following that, the rest of this section describes the front panels display and controls, remote control and rear panel features. The AVP2030 is a two zone preamplifier.

- **Latest technology audio design** - With B & K, you're assured that the basic design foundation of your preamplifier provides excellent quality, fidelity, and a sound so true to life, that it sounds as if your system is a sound stage.

- **Independent zone operation** - The AVP is capable of controlling each zone independently, including audio/video selection, volume levels, muting, power on/off, and preset memories (also digital sources for zone 1). Simply use the AVC-5.0 remote control to operate zone 1 and the AVC-Z2 remote control to operate zone 2.

- **Remote control and front panel operation** - A straightforward remote control and intuitive front panel design will let you operate your AVP preamplifier easily, whether you prefer the hands-on front panel or the easy remote control operation.

- **Multiple inputs** - The AVP provides 7 analog audio, 6 digital coax, 4 composite video inputs, and 3 S-video inputs, enabling a variety of system configurations. To select and control the inputs, you can use either the remote control or the front panel. The analog audio inputs include CD, TAPE, TUNER, DVD/VLD, V1, V2, and TV-V3. The digital inputs include CD, TUNER, DVD/VLD, V1, V2, and TV-V3. The composite video inputs include DVD/VLD, V1, V2, and TV-V3. The S-video inputs include V1, V2, and DVD/VLD.

  *Note: The FX/NC input is the internal Surround Sound Processor. You cannot use this input from the back panel.

- **Multiple outputs** - Multiple audio and video outputs are provided. The audio outputs include buffered, fixed level V1, V2, and TAPE. The Z1 PRE-OUT variable level output features an extra pair of connectors for left and right front. Z2 PRE-OUT variable level output for audio output to your second room. Surround Sound Processor variable level audio outputs include FRONT L, FRONT R, REAR L, REAR R, CENTER, and SUB. The composite video outputs include V1, V2, Z1/MON, and Z2/MON. The S-video outputs include V1, Z1/MON, and Z2/MON.

- **A/V presets** - Your AVP comes equipped with built in preset memories that when selected set up your AVP for you. You can also make changes to settings (such as volume and balance levels, etc.) and save your preferences in your own custom preset. You can save up to 10 A/V presets in each "bank" and recall them easily with the remote control. Recalling a preset while the preamplifier is off, automatically turns on the preamplifier.

- **Two preset "banks"** - Your AVP features two preset "banks", where the collection of presets are saved. In each bank, you can save up to 10 different presets, which translates into 20 different presets you can configure and recall at any time for each zone.

- **Customized input and A/V preset names** - You can use this feature to assign a name to a preset, input, or the turn on message.

- **Controlling external systems or components** - The CTRL OUT output on the preamplifier is rated 12 VDC @ 15 mA continuous. This feature lets you define the output to turn on an external system (such as a B & K amplifier) or related component (such as special room lighting effects).

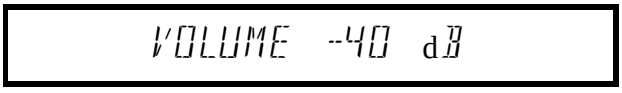
- **Full compatibility with most custom installed IR control systems** - The IR IN input on the rear panel lets you integrate the AVP into an infrared system such as a repeater. This input may also be used for future custom installation technologies.

Display

The AVP display is a 16 character, alphanumeric fluorescent display. The display will look similar to the examples below and always default to zone 1 when zone 1 is on.

Turn on message

Volume level

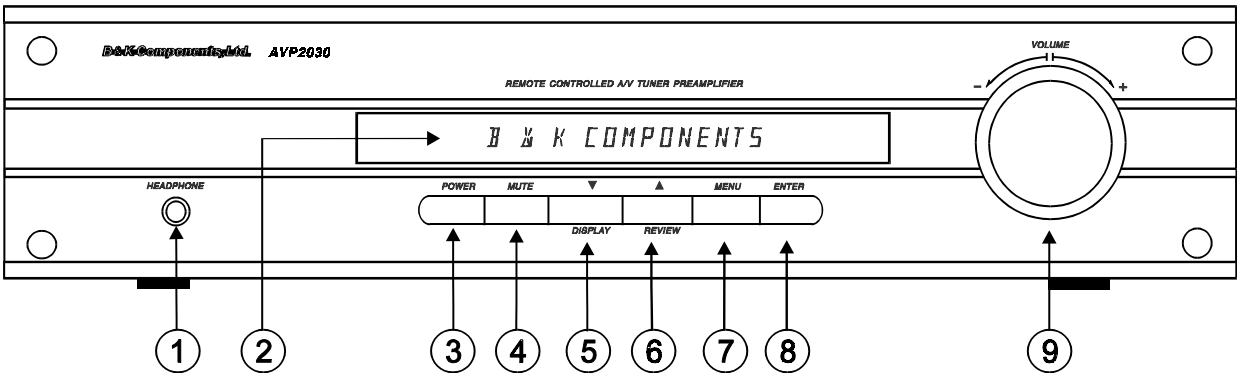


Display on/off

The AVP display can be turned off to minimize its prominence in low light conditions. Pressing the DISPLAY button alternates the display between on and off.
When the display is turned off, it shows two dots (- -) while it is idle. When remote control or front panel activity is detected, the display will turn on and stay on for approximately 20 seconds, after this time it will return to the two dot display.

Front panel view

The figure below shows the front panel controls and features. Input selection or changes to other settings using the front panel controls requires selecting the appropriate MENU options and using the ▼ or ▲ button to change the settings.



1. Headphone jack
2. Display
3. Power button
4. Mute button
5. Display / ▼ button
6. Review / ▲ button
7. Menu button
8. Enter button
9. Volume control

Front panel description

1. Headphone Jack -

Stereo headphones having a standard ¼ inch binaural plug can be connected to the headphone output. The headphone jack is connected to zone 2 of the preamplifier. Use zone 2 when you wish to use headphones.

2. Display -

The AVP display is a 16 character alphanumeric fluorescent display. Displays current mode of preamplifier and any changes being performed. Displays a single dot when preamplifier is in the off condition.

3. Power button -

Turns the AVP series preamplifier and control out on or off.

4. Mutebutton -

Suppresses sound output from the system. The display will show a '*m*' at the right side of the display.

5. Display / ▼ button -

Lets you turn the front panel display on or off. When used in combination with MENU, it will change that options setting. In TEST it selects the previous channel. When used in combination with MODE, it selects the previous surround mode.

6. Review / ▲ button -

Presents a series of displays showing the current settings of the preamplifier. When used in combination with MENU, it will change that options setting. In TEST it selects the next channel. When used in combination with MODE, it selects the next surround mode.

7. Menu button -

Displays a list of menu options, used with ▼/▲ to change the options and settings.

8. Enter button -

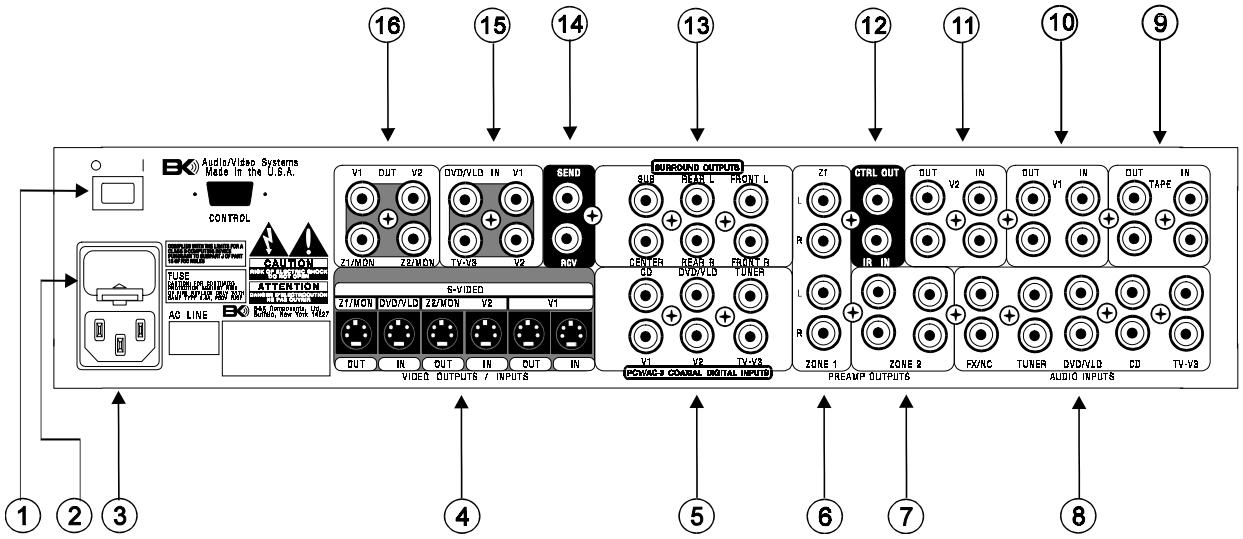
Confirms a selection or displays current setting of an option.

9. Volume control -

For controlling system volume. Turning the volume control clockwise increases the volume level, counterclockwise decreases the volume level. When the preamplifier is in mute, turning the volume up will unmute the preamplifier, turning the volume down will lower the volume but not unmute the preamplifier.

Rear panel view

The AVP back panel is organized into groups of inputs and outputs for audio and video as shown below.



1. Power switch
2. AC fuse holder
3. AC input receptacle
4. S-video inputs/outputs
5. Digital inputs
6. Zone 1 preouts
7. Zone 2 preouts
8. Analog audio inputs
9. Tape loop
10. V1 loop
11. V2 loop
12. CTRL OUT / IR IN jacks
13. Surround outputs
14. Send/RCV jacks
15. Composite video inputs
16. Composite video outputs

Rear panel description

1. Power switch -

For switching AC power to the AVP preamplifier. Off = O, On = I. The rocker must be in the on (I) position for the preamplifier to operate.

2. AC fuse holder -

Holds the AC Line fuse. Replace only with 0.5 A (½ A) 250 V fast blow fuse.

3. AC input receptacle -

For attaching the supplied AC power cord to the preamplifier.

4. S-video inputs and outputs -

Connections for S-video components. Inputs labeled V1, V2, and DVD/VLD. Outputs labeled V1, Z2/MON, and Z1/MON. **The preamplifier will not convert S-video to composite or composite to S-video.** If you wish to use S-video, you must use it through the entire system.

5. Digital inputs -

Inputs labeled V1, V2, TV-V3, TUNER, DVD/VLD, and CD used to connect a digital audio signal from your source to the AVP preamplifier. The incoming signal may be either a PCM or Dolby Digital signal, you configure the input (in the setup menu) according to your system needs. These inputs are coaxial only.

PLEASE NOTE:

The DIGITAL inputs on the AVP2030 will only accept an Industry Standard Consumer Audio **DIGITAL** input signal.(See setup procedure in this manual)

When you connect a Dolby Digital source to an AVP with Dolby Digital, the signal **must** be an Industry Standard Consumer Audio **DIGITAL** signal into the AVP2030.

Laserdisc players normally have an Industry Standard Consumer Audio RF AC-3 signal. This type of AC-3 signal requires an AC-3 RF demodulator to be placed between the player and the AVP2030. This converts the RF AC-3 signal, out of the laserdisc, to an AC-3 DIGITAL signal. This signal can then be processed by the AVP2030 digital inputs.

6. ZONE 1 PRE-OUTS -

Provides variable level audio output for sending to a power amplifier or other audio component. They carry the same signal as the FRONT L and FRONT R surround outputs.

7. ZONE 2 PRE-OUTS -

Provides variable level audio output for zone 2 to send to a power amplifier or other audio component. These outputs are independent of ZONE 1.

8. Analog audio inputs -

Line level inputs for connecting your audio components to the system (TUNER, DVD/VLD, CD, and TV-V3). Must be used to send a signal to zone 2. The FX/NC input is not available for connection as it is the internal surround processor.

9. Tape Loop -

Connections for the audio of a tape deck.

TAPE OUT- Provides a fixed level, buffered audio output for sending to a tape player. Connect the TAPE OUT from the AVP to the TAPE IN on the tape player.

TAPE IN - Accepts audio output from a tape player. Connect the TAPE IN from AVP to the TAPE OUT on the tape player.

10. V1 loop -

Connections for the audio of a VCR designated as VCR 1.

V1 OUT - Provides a fixed level, buffered audio output for sending to a VCR. Connect the V1 OUT on the AVP to the AUDIO IN on the VCR.

V1 IN - Accepts audio output from a VCR. Connect the V1 IN on the AVP to the AUDIO OUT on the VCR.

11. V2 loop -

Connections for the audio of a VCR designated as VCR 2.

V2 OUT - Provides a fixed level, buffered audio output for sending to a VCR associated with Z2. Connect the V2 OUT on the AVP to the AUDIO IN on the VCR.

V2 IN - Accepts audio output from a VCR. Connect the V2 IN on the AVP to the AUDIO OUT on the VCR.

12. CTRL OUT -

Output that allows you to remotely control external devices. This output is rated 12 VDC @ 15 mA continuous. The output goes high (12 VDC) when the preamplifier is turned on, and low (0 VDC) when the preamplifier is turned off. This output works with the B&K amplifiers to remotely turn them on and off (amplifiers with the control feature). Connect the CTRL OUT on the AVP to the CTRL IN on the amplifier using a normal RCA interconnect.

12. IR IN - Accepts input from external IR receptors. Connect your IR repeater to IR IN to control the AVP preamplifier when the front IR receiver is blocked (by cabinet door) or to control the preamplifier from another room (zone 2).

13. Surround outputs -

Outputs for your surround system. These variable level outputs are provided with the Surround Sound Processor option for sending signal to the power amplifiers as follows.

FRONT L - Provides an audio output signal for sending to the input channel of the power amplifier for the front left speaker.

FRONT R - Provides an audio output signal for sending to the input channel of the power amplifier for the front right speaker.

REAR L - Provides an audio output signal for sending to the input channel of the power amplifier for the rear left speaker.

REAR R - Provides an audio output signal for sending to the input channel of the power amplifier for the rear right speaker.

SUB - Provides an audio output signal for sending to the input channel of the power amplifier for a passive subwoofer or the input of a powered subwoofer.

CENTER - Provides an audio output signal for sending to the input channel of the power amplifier for the center speaker.

14. SEND/RCV inputs -

Not currently used. For future applications.

15. Composite Video inputs -

Inputs labeled TV-V3, V2, V1, and DVD/VLD. Provides composite video input to the AVP from the video source that the preamplifier can switch between for viewing or recording the video signal.

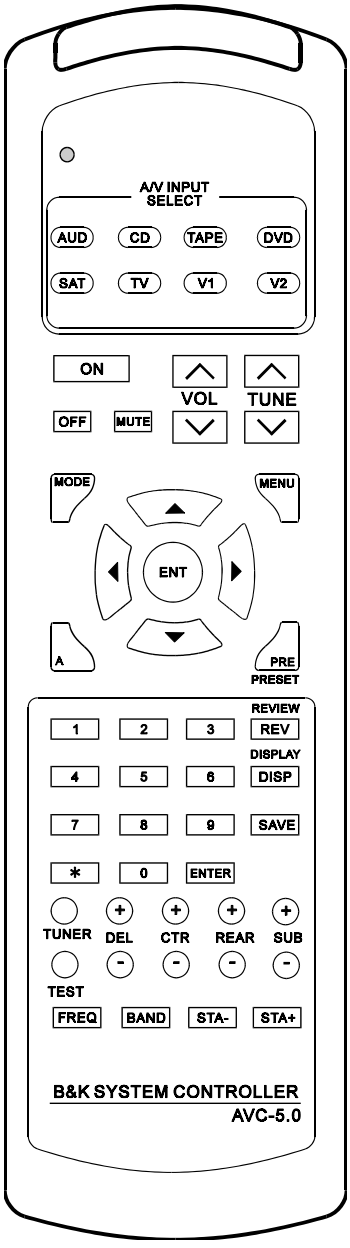
16. Composite Video outputs -

Outputs labeled Z1/MON, Z2/MON, V2, and V1. Provides composite video output to a TV, monitor, or VCR for viewing or recording the video signal. Z1/MON is the video output for zone 1, V1 OUT is the output for zone 1 VCR. Z2/MON is the video output for zone 2, V2 OUT is the output for zone 2 VCR.

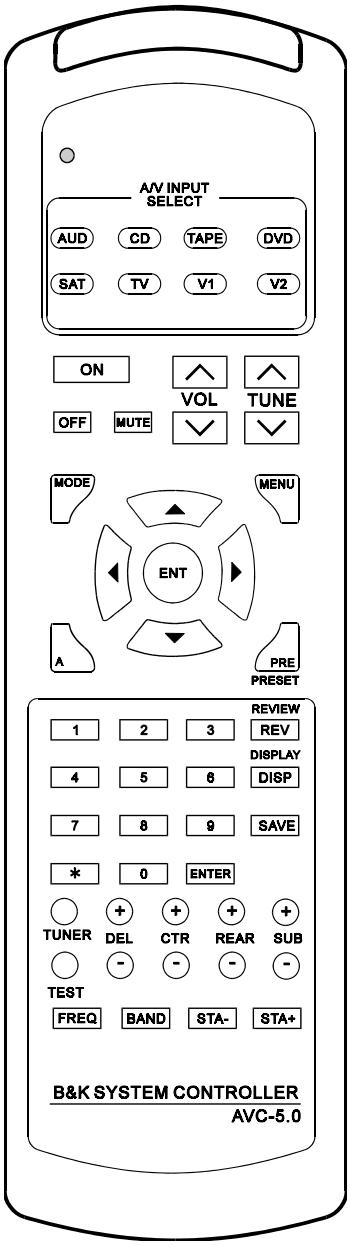
Remote control- AVC-5.0 / Zone 1

The B & K A/V system remote control is specially designed to streamline functions. Although you can choose to use a universal remote, we think you will agree that the remote shown below is simple and easy to learn.

Most buttons on the remote control are duplicated through the front panel. This means it's easy to operate the preamplifier, whether you prefer using the remote control or the hands on approach from the front panel. We recommend using the remote control for simplicity. Use the table below to familiarize yourself with the remote controls functions.



Button:	Function:
AUD	Turns power and CTRL OUT on
CD	Selects audio from component CD
TAPE	Selects audio from component TAPE
DVD	Selects audio/video from component VLD
SAT	Not used (for future applications)
TV	Selects audio/video from component TV-V3
V1	Selects audio/video from component V1
V2	Selects audio/video from component V2
ON	Turns power and CTRL OUT on
OFF	Turns power and CTRL OUT off
MUTE	Suppresses sound output
VOL (/\ / \/)	Lets you increase (/\) or decrease (\/) the volume on all channels
TUNE (/\ / \/)	Not used for the AVP2030
MODE	Lets you toggle through the surround modes
MENU	Displays a list of menu options; used with enter and ▼/▲ to change option settings
▼/▲	Lets you select previous/next option
◄/►	Adjusts left/right level balance for front and rear channels (inactive for Pro Logic and Dolby Digital modes)
ENT	Confirms a selection; when used while a menu option is displayed, displays current setting



Button:	Function:
A	Lets you specify “bank A” when recalling or saving an A/V preset
PRE (PRESET)	Not used (for future applications)
NUMBERS 0-9	Lets you select an A/V preset when followed by ENTER
✱ (star)	Used for advanced operations in conjunction with the numeric key pad (0-9)
REV (REVIEW)	Presents a series of displays showing the current settings (repeatedly pressing REV steps faster)
DISP (DISPLAY)	Lets you turn the front panel display on or off
SAVE	Lets you save an A/V preset ; press SAVE then numeric buttons 0-9 to save an A/V preset, press ENTER to save your selection
ENTER	Confirms a selection; when used while a menu option is displayed, displays current setting
TUNER	Selects audio from component TUNER
TEST	Lets you calibrate speakers using the built in test noise signal
DEL +/-	Lets you increase (+) or decrease (-) the rear channel delay time
CTR +/-	Lets you increase (+) or decrease (-) the center channel volume
REAR +/-	Lets you increase (+) or decrease (-) the surround channels volume
SUB +/-	Lets you increase (+) or decrease (-) the subwoofer channel volume
FREQ	Not used on the AVP2030
BAND	Not used on the AVP2030
STA- / STA+	Not used on the AVP2030

Setup

It's tempting to just plug in your new AVP and have great sound pour out. Before you do that, take a few minutes to plan out how you want the preamplifier to fit into your audio/video system. If you haven't already done so, ask yourself the following questions:

- What source components do I want to connect to my preamplifier? (CD, VCR, etc.)

- What components do I want my preamplifier to send output to?

- What equipment in my system will be receiving and displaying the audio and video? (TV monitor, Audio amplifier, etc.)

The answers to your questions determine how many cables you need to connect to the back of the AVP. For example, if you want your preamplifier to access a CD player, VCR, and Laser Disc player, then output the result to a TV monitor and stereo speaker, you will end up with multiple connections. On the other hand, if your source component is a VCR and your output component is your TV monitor and speaker, you will need less connections. Whatever your audio/video system configuration, good preplanning equals great sound. Keep these recommendations in mind.

- Keep the cables between audio sources and video sources separate.

- Before you begin connecting equipment, decide what types and lengths of interconnects are required for all your components to work well together. You should also plan the paths for all interconnects. Remember, use high quality connections to maintain high quality audio and video.

- The type of cable you use, the length of the cable run, and obstacles in the cable's path (doorways, furniture, walkways, etc.) are also factors to think about. To really optimize your system, talk to your dealer about cable products available, to decide which one's right for you.

- List all components in your system. Be sure to indicate which jack on the rear panel of the AVP each component should be connected to. It's a good idea to also note the length of the cable for each component's connection and describe how it should be routed, or you could draw your routing scheme below your list. As a shortcut, you can assign a number to each cable, write the number on a label and attach it to the cable near both ends. This makes it easy to identify.

- To ensure maximum safety, keep all cables out of high traffic areas (hallways or

doorways) and away from equipment that radiates power, including amplifiers, power cords, heaters, etc.

♦ If you might expand your audio/video system later, keep these ideas in mind as you plan current cable runs.

Factory reset

Reset the AVP before you start. Plug in the power and turn the AVP on. When the display shows:

Press the ✱ (star) then **9** then **8** and the display will show:

The AVP will turn off and back on, then it will cycle through the three title messages and then off again. The AVP is now reset to factory defaults. You can perform this procedure anytime you need to reset the preamplifier to the factory defaults. ***All your presets will be erased***. **Do not interrupt the cycle, do not press any buttons on the remote or preamplifiers face plate.** If you accidentally press a button, you will have to repeat the reset procedure.

Turn the preamplifier **ON** and the display will show:

You can now program the preamplifier to your desired setup.

Making the connection

Take a look at the back panel of the AVP. You will notice that the RCA-type audio input and output connectors are identified by colors. Red for right channel and white for the left channel audio. Composite video input and output connectors are identified by yellow. Digital inputs are identified by orange. The surround outputs are identified by black. The audio inputs and outputs start at the center of the back panel and continue to the right. The S-video inputs and outputs are located to the lower left side of the preamplifier. The composite video inputs and outputs are above the S-video connectors, to the left side of the back panel.

Audio only equipment

The procedure listed is for connecting a CD player to the AVP analog inputs. Use the same instructions for connecting to the TUNER input.

1. Attach one end of the audio interconnect cable to the left audio output on the CD player, then attach the other end to the white left CD audio input on the AVP.

2. Attach one end of the audio interconnect cable to the right audio output on the CD player, then attach the other end to the red right CD audio input on the AVP.

Audio / Video source

The procedure listed is for connecting a DVD/VLD player to the AVP analog inputs. Use the same instructions for connecting other audio / video sources to the TV-V3 input.

1. Attach one end of the audio interconnect cable to the left audio output on the DVD/VLD player, then attach the other end to the white left DVD/VLD audio input on the AVP.

2. Attach one end of the audio interconnect cable to the right audio output on the DVD/VLD player, then attach the other end to the red right DVD/VLD audio input on the AVP.

3. Attach one end of the composite video interconnect cable to the video out on the DVD/VLD player, then attach the other end to the yellow video input on the AVP labeled DVD/VLD. **Or** use the S-video connections. ***The preamplifier will not convert S-video to composite or composite to S-video.***

Video monitor

To add a video monitor to the system. Use the composite or S-video connections.

1. Attach one end of the composite video interconnect cable to the video input on the monitor, then attach the other end to the yellow composite video output or S-video outputs on the AVP labeled Z1/MON for the main zone or Z2/MON for the second zone (other room).

VCR connection

The procedure listed is for connecting a VCR player to the V1 analog input on the AVP analog inputs. Use the same instructions for connecting another VCR to the V2 analog input.

1. Attach one end of the audio interconnect cable to the left audio output on the VCR, then attach the other end to the white left V1 IN on the AVP.

2. Attach one end of the audio interconnect cable to the right audio output on the VCR, then attach the other end to the red right V1 IN on the AVP.

3. Attach one end of the composite video interconnect cable to the video out on the VCR, then attach the other end to the yellow video input on the AVP labeled V1. **Or** use the S-video connections. ***The preamplifier will not convert S-video to composite or composite to S-video.***

This connects the VCR to the AVP for viewing tapes. Now complete this procedure to make recordings through the AVP. Recordings can only be made from analog sources.

4. Attach one end of the audio interconnect cable to the left audio input on the VCR, then attach the other end to the white left V1 OUT on the AVP.

5. Attach one end of the audio interconnect cable to the right audio input on the VCR, then attach the other end to the red right V1 OUT on the AVP.

6. Attach one end of the composite video interconnect cable to the video in on the VCR, then attach the other end to the yellow video output on the AVP labeled V1. **Or** use the S-video connections. ***The preamplifier will not convert S-video to composite or composite to S-video.*** **Note: There is not a V2 out for S-video.**

Tape connection

1. Attach one end of the audio interconnect cable to the left audio output on the Tape deck, then attach the other end to the white left TAPE IN on the AVP.

2. Attach one end of the audio interconnect cable to the right audio output on the Tape deck, then attach the other end to the red right TAPE IN on the AVP.

3. Attach one end of the audio interconnect cable to the left audio input on the Tape deck, then attach the other end to the white left TAPE OUT on the AVP.

4. Attach one end of the audio interconnect cable to the right audio input on the Tape deck, then attach the other end to the red right TAPE OUT on the AVP.

Digital connection

The AVP preamplifier is equipped with six coaxial digital inputs. The digital inputs will accept either a standard PCM digital input or a digital Dolby Digital input. If you wish to use a source that has a TOSLINK output, you must convert it to coax. If you wish to use a laserdisc player that has a RF Dolby Digital output, you must convert it to digital Dolby Digital.

The B & K DT-1 will do both conversions for you.

To connect a digital input to the AVP, simply connect a coax cable from the digital output on your source (CD, DVD/VLD...etc.) to the appropriate orange digital input on the AVP (CD, DVD/VLD...etc.).

In the **SETUP** menu, select digital on for the appropriate source, to enable the digital input (CD DIGITAL ON, VLD DIGITAL ON...etc.).

To connect a digital Dolby Digital (AC-3) signal **(NOT RF)** to the AVP, simply connect a coax cable from the Dolby Digital output on your source to the appropriate orange digital input on the AVP (normally DVD/VLD). This output **MUST** be a digital output and **NOT RF**.

In the **SETUP** menu, select digital on **or** digital AC-3, to enable the digital input. The digital input will automatically switch to Dolby Digital if it is set to ON and a Dolby Digital signal is present. The AVP will default back to PCM when the Dolby Digital signal stops for more than 30 seconds. Setting the digital to AC-3 will only allow a Dolby Digital signal to be accepted.

Surround setup

Always set up and calibrate your speakers immediately after connecting your preamplifier to your system. You need to set up the speakers to achieve the best, most accurate performance from your preamplifier. This is important because the preamplifier needs to "know" your speaker configuration to control your current system. Any time you change your speaker configuration, you should perform setup and then calibration on your preamplifier.

When you are setting up your speakers, your preamplifier gives you several options to help you maximize your audio/video system. Since every system is unique, you can choose from the menu options and try different combinations until the sound is exactly the way you want it.

Channel mode explanation

Channel	Mode/Option	Description
Left / Right	Large	80 Hz high pass filter off. Do not sum bass to subwoofer. Full range to front left and right.
	Small	80 Hz high pass filter on. Sum bass to subwoofer. Filters bass frequencies from front channels and sends it to the subwoofer (fc = 80 Hz @12 dB/Oct).
Center	Large	80 Hz high pass filter off. Do not sum bass to subwoofer. Full range to center channel.
	Small	80 Hz high pass filter on. Sum bass to subwoofer. Filters bass frequencies from the center channel and sends it to the subwoofer (fc = 80 Hz @12 dB/Oct).
	None	No center channel output. Use if you do not have a center channel speaker. Sends the center channel information to the front speakers.
Surround	Large	80 Hz high pass filter off. Do not sum bass to subwoofer. Full range to rear left and right.
	Small	80 Hz high pass filter on. Sum bass to subwoofer. Filters bass frequencies from rear channels and sends it to the subwoofer (fc = 80 Hz @12 dB/Oct).
	None	No rear channel output. Use if you do not have rear channel speakers.

Channel	Mode/Option	Description
Subwoofer	Yes	Sends output to the subwoofer (fc = 80 Hz @24 dB/Oct).
	No	No subwoofer. Sends all bass frequencies to the front left and right channels including the LFE channel. Removes SW BASS MENU.

Bass Management

Note: LFE = Low Frequency Effects channel (or .1 channel)

Option/mode	Description
Bass Normal	LFE on. Bass frequencies and LFE are sent to the appropriate channels.
Bass LFE Off	LFE off. Removes the LFE channel from the bass management summing circuitry.
SW Bass Normal	Adds bass to the subwoofer for any channel set to SMALL. Example: If the front speakers are set to SMALL, the bass frequencies go to the subwoofer, not the front speakers.
SW Bass Ultra	Allows for all channels to be summed to the subwoofer regardless of SMALL/LARGE speaker settings.

Delay settings

CTR DELAY - Center channel delay. The center channel has a variable delay that may be set from 0 ms to 5 ms. This adjustment is designed to delay the center channel speaker when the front three speakers are not lined up on the same plane.

SUR DELAY - Surround channel delay. The surround channel delay is variable between 0 ms to 15 ms for Dolby Digital and 15 ms to 30 ms for Pro Logic. When changing the surround delay setting, only the Dolby Digital setting will be displayed. The Pro Logic setting is automatically 15 ms higher than the Dolby Digital setting.

Example: If the surround delay is set at 0 ms, the Pro Logic delay is automatically 15 ms.
If the surround delay is set at 5 ms, the Pro Logic delay is automatically 20 ms.

Surround mode explanation

SURROUND MODES	**CHANNELS ON †**	**DELAY RANGE**	**NOTES †**
DOLBY SURROUND	LF,RF,C,LR,RR SUB	0 - 15 ms or 15 - 30 ms	AC-3 Mode-All speakers are full range. Dolby Pro Logic- Rear left and right are mono surround and sent through the delay.
3 STEREO	LF,RF,C,SUB	0 ms	Rear left and right signals mixed with front left and right.
3 STEREO HALL	LF,RF,C,LR,RR SUB	0 - 15 ms or 15 - 30 ms	Rear left and right are mono surround and sent through the delay.
STEREO	LF,RF,SUB	0 ms	Stereo listening mode.
STEREO F/R	LF,RF,LR,RR SUB	0 ms	Front left is sent to the rear left and front right is sent to the rear right. SUB is the front left and right signals summed.
STEREO HALL	LF,RF,LR,RR SUB	0 - 15 ms or 15 - 30 ms	Same as 3 STEREO HALL with no center channel.
DIRECT	LF,RF,SUB	0 ms	Direct mode is the same as Stereo mode except the 2 channel output signal is pre-processor for analog sources. (True Stereo bypass if using analog inputs)

† Output configurations for each mode are limited by the speaker setup in the **SETUP** menu.

The surround setup is for zone 1 only. Zone 2 does not require any setup procedure as it is a stereo (left and right channel) zone only.

Speaker calibration

Always calibrate your speakers after you have performed setup. Surround calibration is different from adjusting balance levels. When you calibrate, you equalize volume levels on ***all*** channels with a final goal of ensuring that the volume is the same on each one. When you adjust balance, you turn the volume up or down on ***specific*** channels because the sound you are hearing seems either too loud or too soft.

Calibration is more than equalizing the volume levels on all channels. When you are calibrating your speakers, variables such as the shape of the room, how furniture is arranged, as well as anything that influences the acoustics of the room such as carpeting, curtains, sound panels, etc. must be considered. You should always calibrate by sitting where you normally sit to watch movies or listen to music. This is your ideal listening position. Once in this position, adjust the volume of each channel to match the others. You can do this by listening to each speaker and making adjustments or to verify equal decibel levels (dB) you can use a sound-pressure level meter.

Do not use calibration to "boost" or "cut" a channel. For example, if you want to increase the level of the subwoofer for effect, adjust the level using the **SUB LEVEL +** button on the remote ***after*** you have completed calibration for equal levels.

Setup procedure

Turn the preamplifier on. The display should read VLD DIRECT if this is the first time the preamplifier is turned on and set up.

Press the **MENU** button and the display shows:

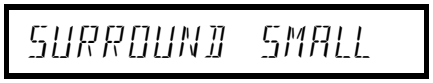
Press **ENTER**, the display shows:

You can toggle between the LARGE and SMALL modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:

You can toggle between the LARGE, SMALL, and NONE modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:



You can toggle between the LARGE, SMALL, and NONE modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:

You can toggle between YES and NO modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:

You can toggle between BASS NORMAL and BASS LFE OFF modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:

You can toggle between SW BASS NORMAL and SW BASS ULTRA modes by pressing ▲ or ▼.

Press **ENTER**, the display shows:

You can increase center delay to 5 ms by pressing the ▲, or decrease back to 0 again by pressing ▼.

Press **ENTER**, the display shows:

You can increase surround delay to 15 mS by pressing the ▲, or decrease back to 0 again by pressing ▼.

Press **ENTER**, the display shows:

You can toggle between OFF, ON and AC-3 modes by pressing ▲ or ▼. This holds true for the CD, V1, V2, TV, and TNR digital settings.

Digital off- Selects the corresponding AUDIO L/R analog input for Pro Logic Surround Processing.

Digital on- Selects the corresponding digital input for PCM Pro Logic Surround Processing. If Dolby Digital is detected, Dolby Digital surround processing is automatically used.

Digital AC-3- Selects the corresponding digital input for Dolby Digital Surround Processing. PCM signals are not processed in this mode.

Press **ENTER**, the display shows:

Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

Press **ENTER**, the display shows:

You can increase to +6.0 dB by pressing the ▲, or decrease to -6.0 dB by pressing ▼. This holds true for the CD, V1, V2, TV-V3, TUNER, and TAPE level settings. The level controls are for matching the input levels of all your sources coming into the preamplifier.

Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

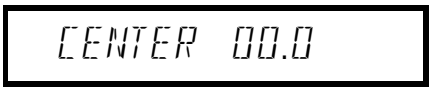
Press **ENTER:**

Press **ENTER:**

The surround calibration is next. Adjust the levels with the **MASTER VOLUME +/-** buttons. You have a range of -12.0 to +12.0 in 0.5 dB increments. Equalize the volume level of all the channels by adjusting the calibration of each individual speaker until they all have the same volume from your ideal listening position. You can move from channel to channel by pressing the ▲ and ▼ buttons or the **ENTER** button.

Press **ENTER**, the display will show:

Press **ENTER:**



Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

Press **ENTER:**

Press **ENTER**, the display shows:

You have completed the setup procedure. Remember, you have to perform the calibration procedure every time you change your speaker configuration.

Using presets

There are 20 A/V presets provided for each zone. Presets “0" through “9" are selected using the numeric buttons on the remote (0-9). Pressing the “A” button first allows you to select bank “A” presets, “A0" through “A9", using the same numeric buttons (0-9).

The preprogrammed audio/video presets let you instantly select any of the audio/video sources along with volume level and surround mode settings. You can customize the presets, including the preset name, for ease of operation.

Recall a preset

Using the remote control, press a number on the keypad to display the preset name. Pressing “A” selects “bank A”. Once you press a preset number, you can then press ▲ or ▼ to step through all the preset names. If the AVP is off, pressing a preset number will turn the preamplifier on, then pressing **ENTER** will select that preset.

Keypad number	Display shows	Keypad number	Display shows
0	0 MUSIC VIDEO	5	5 PLAY RADIO
1	1 PLAY CD	6	6 WATCH V2
2	2 WATCH VLD	7	7 PLAY TAPE
3	3 WATCH V1	8	8 WATCH SPORTS
4	4 WATCH TV	9	9 TV SIMULCAST

Select the desired preset number then press **ENTER** to recall. The display will show (if you selected preset #1):

Save a preset

A preset will save the following information:

Master volume, selected input, input mode (analog, PCM, or Dolby Digital) Surround mode, rear volume, subwoofer volume, center channel volume, delay setting, and display status of on or off.

To save a preset, press the **SAVE** button, followed by the preset number you wish to overwrite (0-9 or A0-A9), then **ENTER**.

Example: If you want to save a setup for the preset 1 (CD), first recall the preset by pressing **1** then **ENTER**. (Or press the CD button to select CD input.)

Select the desired surround mode by pressing the **MODE** button until the desired mode is displayed.

Next set the desired volume level:

Now save the preset by pressing **SAVE**:

Press **1**:

Press **ENTER** to select and overwrite the displayed preset:

Your settings are now saved under preset 1, any time you select this preset your settings will be recalled.

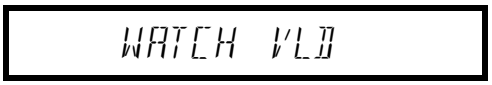
Follow the same procedure for the other presets.

Rename a preset

Once you save your own custom preset, you can rename it to make it easy to remember for the next time you want recall the preset. For example, suppose you saved your favorite settings for watching a movie in A/V preset 2, and you'd like to rename the preset to "WATCH MOVIE".
Using the remote control, press **MENU** until the display shows:

Press ▲ or ▼ until the display shows

Press **ENTER** to select renaming this title. The display will show the current A/V preset name:



The display shows a flashing cursor "_" at the character you are currently editing. Pressing ▲ or ▼ changes the character, pressing **ENTER** accepts (or skips) the blinking character.

Continue the steps above until you achieve:

Pressing **ENTER** at the last character completes the renaming session and exits.

The presets are independent for each "bank" allowing you to save different names in each "bank". The character set you have available for renaming is shown below.

A - Z	0 - 9	/	-	+	?	&	space
A--Z	0--9	/	--	+	?	&	

You can also rename the seven input titles and the power on title using the same procedure and character set above.

Zone 2 (Z2) description and operation

As briefly stated throughout this manual, the second zone (zone 2 or Z2) is for audio only listening. The setup procedure, surround modes, and digital inputs are for zone 1 (Z1) only and have no effect on zone 2 (Z2). There are 2 sets of stereo outputs for zone 2.

You will need more amplifiers and speakers to use zone 2. You can add stereo speakers in other rooms of your house or even outside (if you have outdoor speakers).

The headphone jack is controlled by zone 2's selector and volume control. Use zone 2 for headphone listening

In order to use zone 2, you must connect the analog cables from your sources to the preamplifier. You can connect the digital and analog cables for the same source to the preamplifier. Making your connections in this manner will allow you to use the digital for zone 1 and analog for zone 2.

Zone 2 volume can be controlled in different ways as follows:

1. Use the zone 2 remote (small green remote) supplied with your preamplifier.

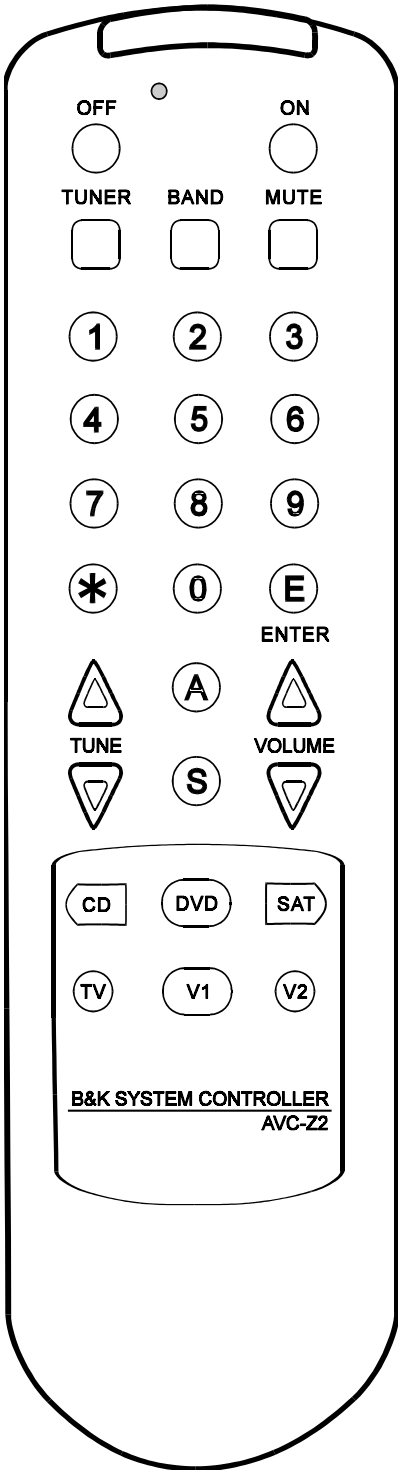
2. Only turn zone 2 on, the master volume control on the faceplate of the preamplifier will control zone 2 volume.

3. Press the menu button on the faceplate of the preamplifier until **ZONE 2 VOLUME** is displayed, press **ENTER**, now the volume control on the faceplate of the preamplifier will temporary operate Z2 volume.

Zone 2 menu from the faceplate	Zone 2 presets	
ZONE 2 VOLUME	0 MUSIC VIDEO	5 PLAY RADIO
CUSTOMIZE TITLES	1 PLAY CD	6 WATCH V2
RESET TITLES	2 WATCH VLD	7 PLAY CD
RESET Z2 PRESETS	3 WATCH V1	8 WATCH SPORTS
TURN ZONE 2 OFF	4 WATCH TV	9 TV SIMULCAST
RECALL Z2 PRESETS		
SELECT Z2 INPUT		

Remote control- AVC-Z2 / Zone 2

The AVC-Z2 operates zone 2. Use this remote when you wish to operate the second zone. Use the table below to familiarize yourself with the remote control functions. ***The AVC-Z2 operates zone 2 only.***



Button:	Function:
OFF	Turns zone 2 power and CTRL OUT off
ON	Turns zone 2 power and CTRL OUT on
TUNER	Selects audio from component TUNER
BAND	Not used for zone 2
MUTE	Suppresses sound output
NUMBERS 0-9	Lets you select an A/V preset when followed by ENTER
✱ (star)	Not used for zone 2
E (ENTER)	Confirms a selection; displays current setting
TUNE (∧ / ∨)	Not used for zone 2
A	Lets you specify “bank A” when recalling or saving an A/V preset
S (SAVE)	Lets you save an A/V preset; press SAVE then any numeric button 0-9, press ENTER to save your selection
VOL (∧ / ∨)	Lets you increase (∧) or decrease (∨) the volume on all channels
CD	Selects audio from component CD
DVD	Selects audio/video from component VLD
SAT	Not used (for future applications)
TV	Selects audio/video from component TV-V3
V1	Selects audio/video from component V1
V2	Selects audio/video from component V2

Advanced operations

Star (✱) operations (for zone 1 only)

The AVP has incorporated some new ways to change the mode of the source inputs. In the standard **SETUP** menu, the digital modes of VLD, CD ,V1 ,V2 ,TV-V3, and TUNER are set globally and are not affected as presets are recalled. Now with the ✱(star) operations described below, you can override the setup mode to another digital input mode. You can also save the new mode in an A/V preset for later recall. What does all this mean? It means you can have presets for more than one digital mode of the same input source.

For example, you can save one CD preset that uses the standard L,R analog inputs in direct, and save another CD preset that uses the digital input with stereo. Depending on what you want to hear at the time, you can select the appropriate preset without having to go through the SETUP menu and surround mode changes again.

It should be noted that only the **DIGITAL ON** mode, when set in the **SETUP** menu, allows the AVP to automatically switch over to Dolby Digital Surround Processing when a Dolby Digital digital input is detected. This automatic feature also provides automatic switching back to PCM, 30 seconds after an Dolby Digital signal is no longer present. Overriding the digital mode to **DIGITAL OFF** defeats the automatic sensor.

Procedure

First select the preset you wish to change. We will use preset 1 for this example but the same holds true for all presets 0-9 and A0-A9.

Press **1**, then **ENTER** to recall preset 1.

Set the input mode by selecting one of the following:

KEYSTROKE	MODE
✱(star) then 1 then 0	DIGITAL OFF
✱(star) then 1 then 1	DIGITAL ON
✱(star) then 1 then 2	DIGITAL AC-3

Save the setup to preset 1 by pressing **SAVE**, then **1**, then **ENTER**.

The new setup will be save for preset 1. You can save digital off for preset 1 and digital on for preset A1 if you wish. This would allow you to have two different sources into the CD inputs, one digital and one analog. NOTE: You must have analog inputs connected in order to use zone 2.

These star operations do not change the digital settings in the **SETUP** menu. They are a temporary change to the mode of the input selected. When the AVP is powered off and then on, the inputs will default back to the **SETUP** menu status (Unless a preset was selected to turn on the AVP).

Other star (✱) operation

Star 98 will reset the preamplifier back to the factory presets. This is a master reset for the preamplifier and will erase everything that was programmed into the system memory.

Factory reset

Reset the AVP before you start. Plug in the power and turn the AVP on. When the display shows:

Press the ✱ (star) then **9** then **8** and the display will show:

The AVP will turn off and back on, then it will cycle through the three title messages and then off again. The AVP is now reset to factory defaults. You can perform this procedure anytime you need to reset the preamplifier to the factory defaults. ***All your presets will be erased.*** **Do not interrupt the cycle, do not press any buttons on the remote or preamplifiers face plate.** If you accidentally press a button, you will have to repeat the reset procedure.

Turn the preamplifier **ON** and the display will show:

You can now program the preamplifier to your desired setup.

This is the same procedure as shown on page 15.

Troubleshooting

PROBLEM	POSSIBLE CAUSE	POSSIBLE SOLUTION
No sound, display will not light	1. Power cord not plugged in. 2. Power off at AC source. 3. Power switch off. 4. AC power inlet fuse blown or faulty. **	1. Reconnect power cord. 2. Check power at plug. 3. Turn the power switch on. 4. Check for shorts or overloading.
No sound, display on.	1. Preamplifier in mute 2. Volume control to minimum. 3. Wrong source selected. 4. Wrong source mode selected.(analog/digital) 5. Line stage to amp. cables loose or faulty. 6. Source to line stage cables loose or faulty.	1. Unmute preamplifier. 2. Increase volume. 3. Select source. 4. Select proper mode. (page 24,31) 5. Tighten, repair, or replace cable. 6. Tighten, repair, or replace cable.
Loud hum or buzz on one or more channels	1. Poor ground connection in interconnect cables.	1. Check all connectors and repair as necessary.
Surround sound does not sound correct.	1. Recordings are not Pro Logic. 2. Recordings are not Dolby Digital. 3. Surround processor not in correct mode.	1. Play a Pro Logic recording. 2. Play a Dolby Digital recording. 3. Select proper surround processor mode.

***Note:** If unit continues to blow power inlet fuses, **DO NOT USE A HEAVIER FUSE!!,** have it serviced.

Specifications

Audio Specifications

Frequency Response (+3 dB):	5 Hz - 150 kHz	
Line Level Sensitivity:	63 mV	
Maximum Output Level:	9 V R.M.S.	
Total Harmonic Distortion:	Less than .02%	Unprocessed
	Less than .05%	Front
	Less than .12%	Rear
	Less than .05%	Subwoofer
Signal to Noise Ratio:	89 dB, CCIR 2k Weighted, max level	
Input Impedance:	50k Ohms	
Output Impedance:	221 Ohms	
Noise Test Reference Level:	-12.5 dB	
Surround Outputs non-inverting	6	
Audio Analog Inputs	7	
Non-inverting audio outputs		
Zone 1 Audio Outputs (extra L & R)	2 sets	
Zone 2 Audio Outputs	2 sets	

Video Specifications

Frequency Response (-3,-3 dB):	20 Hz - 10 MHz	
Buffered Input Impedance:	75 Ohms	
Buffered Output Impedance:	75 Ohms	
Maximum Input Level:	2 V R.M.S.	
Maximum Output Level:	2 V. R.M.S.	
Composite Video Inputs/Outputs	4 / 4	
S-Video Inputs/Outputs	3 / 3	
Digital Coax Inputs	6	
Line Voltage	120/220/240 VAC switchable	
Replacement fuse	Line fuse - 0.5 A / 250 V fast blow	
Shipping weight	20 lb	
Dimensions	width	17 inches
	height	3¾ inches
	depth	12 inches

Care and cleaning

Under normal use, the preamplifier will not require any special care. Over time you may wish to clean the exterior of the unit by wiping it with a damp cloth to remove any dirt or dust that accumulates on it. Do not let any liquid enter the preamplifier thru the vents in the top cover.

You may clean the connectors on the back panel with isopropal alcohol annually.

Limited Warranty

B&K Components Ltd., referred to herein as B&K, warrants your B&K equipment against all defects in material and workmanship for a period of five years from the date of purchase. This warranty applies only to the original purchaser and only to equipment in normal residential use and service. Defective equipment must be returned to B&K, prepaid, accompanied by sufficient payment to cover the cost of return shipping and handling, and will be repaired or replaced at the discretion of B&K whose decision as to the method of reparation will be final.

This warranty shall not apply to any equipment which is found to have been improperly installed, incorrectly fused, misused, abused, or subjected to harmful elements, used in any way not in accordance with instructions supplied with the unit, or to have been modified, repaired or altered in any way without the expressed, written consent of B&K. This warranty does not apply to the cabinet, the remote controller, or appearance items such as the faceplate, control buttons, or display lenses, nor does it cover any expenses incurred in shipping the unit to and from the manufacturer's service depot.

No warranty, implied or otherwise created by State law shall extend beyond the terms of this warranty and B&K shall not be liable for any incidental or consequential damage arising out of a defect in material or workmanship of the unit during the terms of this warranty or thereafter. Some States do not allow the exclusion or limitation of incidental or consequential damages and the foregoing exclusions may not apply to you.

This warranty gives you specific legal rights. Your may also have other rights which vary from State to State.

No agent, representative, dealer or employee of B&K has the authority to increase or alter the obligations or terms of this warranty.

B&K Components Ltd.

RETURNING EQUIPMENT

No equipment may be returned to B&K Components Ltd. Without a RETURN AUTHORIZATION. Should you find it necessary to return equipment to B&K, for any reason, a RETURN AUTHORIZATION (R.A.) number must be issued by B&K in respect of the equipment being returned. You may request an R.A. number by calling B&K at the numbers below. We ask that you provide the following information at that time.

1. Your name, address, and phone number.
2. The model and serial number of the equipment being returned.
3. A description of the problem being experienced.

Your call will be referred to a Technical Service Representative who will work with you to resolve the problem. If it is determined that the unit must be returned for repair, an R.A. number will be issued.

B&K Components Ltd. 2100 Old Union Road, Buffalo New York 14227
1-800-543-5252 or 1-716-656-0023

B&K Components, Ltd.
2100 Old Union Road
Buffalo, New York 14227
716-656-0023

LIST YOUR UNIT INFORMATION HERE

MODEL # _____

SERIAL # _____

DEALER NAME _____

_____

DEALER PHONE # _____

SALES PERSON _____

DATE PURCHASED _____